# INFECTION PREVENTION AND CONTROL IN KITCHEN



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## **DEFINITION**

hospital kitchen layout often includes spaces for multiple preparation, cooking, washing and service stations. ... Dietary items specific to hospital settings, such as liquid diets and bland broths for post-surgical patients. Meals for patients with conditions like diabetes, heart disease or food allergies.



# Hospital Catering Services





- Hospital catering services are an essential part of patient care.
- Good-quality, nutritious meals play a vital part in patients' rehabilitation & recovery, & limit the unnecessary use of nutritional supplements.
- Hospital catering services should be cost effective & flexible enough to provide a good choice of nutritious meals that can accommodate patients' specific dietary requirements & preferences.

## **Environmental Planning**



Adequate ventilation

Steam supply

Gas pipeline

Solid Stainless flooring Environmental

Garbage disposal

Water Supply

**Enough light** 

#### **Equipments**



**Cutting equipments** 

**Dish Cleaning** 

Chapatti making machine

**Grinding machine** 

Weighing machine

Mixing machine

**Cooking ovens** 

Distribution trolley

**Distribution trolley** 

#### **Dietary Service Management** Diet & Menu وزارة الصحة planning Ministry of Health Quality Area Control management Raw Financial Management material Management management Equipment Personnel management Management Food Management



## HYGIENE



• The importance of hygiene in a hospital kitchen cannot be over emphasized. We are all susceptible to bacterial infection, but a sick person with lowered resistance is doubly so.

All walls and ceilings should be painted every 2 years and washed down every 6 months. Floor cleaning in the kitchen must be a routine job.

Equipment and personnel hygiene should be stressed.



Food Safety

# **Food safety**



is a scientific discipline describing handling, preparation, and storage of food in ways that prevent food borne illness.





Food containers are properly labeled and expiry dates noted.

- Temperature requirements are met during:
- Storage
- Preparation
- Transportation
- Food is protected from environment during:
- Storage
- Preparation
- Display
- Transportation





Refrigerator temperatures are checked daily and documented on log sheets.

Kitchen environment is clean without areas of stagnant water on floors.



# UTENSILS ARRAGEMENT

Food containers are washed immediately after being emptied from food.

Boards to cut meat, poultry, chicken, or vegetables should be separate and should be immediately washed after use.



Patients in the hospital are the higher risk group of foodborne illness











Infants and Children

Patient s with weakened immune systems and individuals with certain chronic diseases

## PPE USEAGE IN KITCHEN



Gloves are worn while handling raw meat, or vegetables, or fruits.

There is enough hand washing facilities with liquid soap and paper towels in the kitchen.

Personnel with respiratory infections or gastroenteritis are restricted from handling food.



#### KITCHEN STAFF MANAGEMENT

Stool for ova and parasites and stool cultures are done routinely upon hiring, every 3 months thereafter, and after returning back from vacation.

- Results of stool analysis and cultures are reviewed by the Infection Control Practitioner as soon as they become available.
- Food sample for analysis should be done every 3 months.

## FOOD HANDLERS:

Additional to the hospital pre- employment screening requirement, complete a screening process in EHC

- Clinical examination (chest, abdomen, skin diseases, communicable disease).
- Chest X-ray to rule out Pulmonary Tuberculosis.
- Stool analysis for ova and parasites.
- Stool culture for Salmonella, Shigella and Cholera.
- Vaccination for meningococcal disease with a booster every 5 years.
- Vaccination for typhoid fever with a booster every 5 years.
- Have a valid medical examination certificate indicating that they are free from infectious diseases and fit to work as a food handler, this certificate must be issued by Infection Prevention & Control Department will be valid for one year and renewable yearly after the assessment of the food handler.



### KITCHEN STAFF MANAGEMENT



Repeat clinical examination every six months and when employee leaves on vacation to areas of high risk of communicable diseases.

Follow proper and frequent hand hygiene and personal hygiene practices Finger nails: keep trimmed and filed, do not apply finger nail polish or artificial fingernails.



## KITCHEN STAFF MANAGEMENT



- Jewelry: Do not wear jewelry on the arms and hands while preparing food to allow proper hand hygiene.
- Wear and maintain proper clean attire during food handling (clean uniform, apron and
  - hair and beard restraint, clean gloves when needed). Do not wear street clothes in food
- service areas.
- Do not eat, drink or smoke while preparing or handling food.
- Do not go to washroom with masks or gloves.

### FOOD ITEM STORAGE



#### Storage:

- Store non-perishable food in clean, dry, properly ventilated areas and inspect them periodically for expiration dates and any signs of spoilage.
  - Store food in designated areas. Do not store in housekeeping and dishwashing areas or near any sources of potential contamination.
- Store in clean wrappers or containers with covers; label contents appropriately with date when item was received

#### FOOD ITEM STORAGE



Fruit and vegetables (except those in dry storage): 40°F to 45°F (4°C to 7°C).

- Dairy products, eggs, meats, poultry, fish, and shellfish: 32°F to 40°F (0 °C to 4°C).
- Frozen foods: -10°F to 0°F (-23°C to -10°C).
- Keep temperature logs of all storage areas, if a problem occurs, correct it and record the methods used to correct it; date, sign, and file.
- Store food at least 6-inches above the floor level on clean racks with slatted shelves or racks that prevent cross-contamination and proper air circulation Store eggs in original container in the refrigerator at 45°F (7°C).
- Remove all corrugated cardboard as soon as possible, because these boxes may
  deteriorate or damage the product, the product may leak, or water damage may be
  present; any moisture rots the boxes, and these conditions allow for pest infestation
  and possible damage to the product.
- Keep storage areas and vehicles that transport food clean. The area must



# KITCHEN ENVIRONMENT

#### have variable

lighting, ventilation, and air circulation. A temperature range for dry storage is 50°F to 70°F (10°C to 21°C). Document monitoring of temperature in a log book.

Low temperature storage maintenance:

#### Never cover the slats

with foil or other materials as this prevents flow of air; and, keep away from walls to facilitate cleaning and allow for pest control measures.

# KITCHEN ENVIRONMENT



Shelving must allow for cleaning under the bottom of the shelf or flushing of the floor; away from walls to facilitate cleaning; and reduce infestation of pests.

- Storage shelves should be at least 2 inches from outside walls that may sweat because of differences between inside and outside temperatures.
- Implement cleaning schedules and monitor for cleanliness, temperature, ventilation, and pest infestation.
- Never store toxic materials used for cleaning and sanitation in food storage area. Label and store in a locked area away from food and paper goods.
- Use the first in first out (FIFO) procedure to rotate stock. Periodically check the expiration dates on all food and supplies.
- Monitor the temperature of all refrigerators and freezers and record them daily in a log.



Aspects of Food Safety







#### Food Preparation:

Instruct personnel and supervise for personal hygiene and food safety during food preparation.

Wash vegetables and fruits properly.

Thaw either in a microwave, a refrigerator or under running water. Do not thaw under room temperature.

Do not thaw and refreeze.

Cook food thoroughly to reach correct temperature for different types of food.

Store prepared food protected at proper temperature once ready to avoid any contamination. Do not allow to sit uncovered at room temperature.

Avoid handling of food with bare hands; use proper and clean utensils like tongs and spoons.

# FOOD PREPARATION



- •Use separate cutting boards for raw meat, poultry, fish, raw fruits and vegetables and cooked food unless boards are non-absorbent (scratch, chip, crack) and can be cleaned and sanitized adequately between uses.
- •Use clean equipment and utensils during food preparation and avoid cross contamination.





Transport, Display & Serving:

Transport food to different areas protected in temperature-controlled carts.

Establish safe times for food items to be stored in inpatient care areas.

Protect food on display from customer contamination by the use of easily – cleanable counter protector devices.

Maintain food on display at right temperature whether hot or cold.





#### Washing & Cleaning:

Establish comprehensive cleaning schedules to include different areas, equipment, fixtures, and physical facility structure (walls, floors...).

Monitor dishwasher washing and rinsing temperature to achieve proper sanitation and washing of food utensils.

After manual washing: Sanitize all utensils and equipment either by hot water 70°C or the use of sanitizer (sodium hypochlorite) at appropriate concentrations and exposure time.

Wash all working surfaces, thoroughly, rinse and sanitize them after each use with The proper sanitizer, dilution, exposure temperature.





#### Pest Control:

Follow appropriate pest control measures to prevent the access and extermination of pests (sanitation, screens, closure of cracks and holes

# RECALL FOOD DISTRIBUTED TO CUSTOMERS



Recall Food Distributed to Customers

- Urgent action taken to retrieve the product from distributed place which is potentially unsafe. Two type of recall:
  - Recall class one: this arises when there is a reasonable probability that use or consumption of the product would cause adverse health consequences or death, for example; presence of impermissible limit of clostridium botulinum, salmonella spp. Toxic chemicals or harmful foreign bodies.
- Recall class two: the product may have serious defects, which may represent a potential health risk.





#### Prevention Strategies for Safe Food Handling

- Label all food with the preparation date and time.
- No thawing and refreezing food products; keep product refrigerated or frozen.
- Thaw food (a) under refrigeration in which food temperature is maintained at or below 41°F(5°C); (b) completely submerged under potable running water (at a water temperature of 70°F(21°C); (c) place food in a water type bag and submerge in cold water (change the water every 30 minutes); (d) as part of the cooking process; or, (e) in a microwave and immediately transferred to conventional cooking equipment with no interruption in the process.

## SAFE FOOD HANDLING

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No precooking and holding meats for final cooking.

- Chill cooked perishable leftover foods to an internal temperature of 5°C (41°F) or less or to7°C(45°F) or less within 2 to 4 hours of preparation.
- Do not stack shallow pans on top of each other (allow air to circulate around food being chilled).
- Rapid heating to 165°F (74°C) within 2 hours.
  - Keep hot food at 135°F (57°C) or higher.
  - Stirring food while holding.
- Do not pour a batch of new hot food into a batch of hot food being served.
  - Do not use hot food-holding equipment (such as steam tables) to reheat food.
  - Do not reuse food or condiments that have been previously served to customers (butter, sauce, dressings, chips, or bread).

Use sanitized, calibrated thermometers to monitor the temperatures, as required

March.